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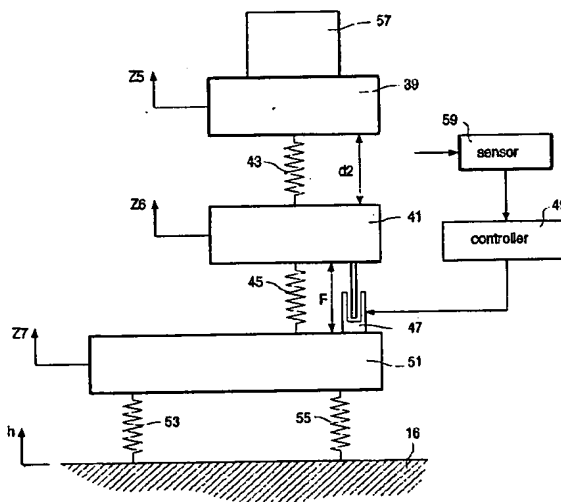
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(54) Title: **ACTUATOR ARRANGEMENT FOR ACTIVE VIBRATION ISOLATION USING A PAYLOAD AS AN INERTIAL REFERENCE MASS**



(57) Abstract: System for and method of active vibration isolation to isolate a payload (57) from earth movements. The system has a body (16; 51), a mass (41) supported by the body (51) by means of at least one spring (45), a further mass (39) supported by the mass (41) by means of at least one further spring (43). A sensor senses a distance between the mass (41) and the further mass (39) and generates a distance signal. A controller (49) receives the distance signal and generates a control signal based on the distance signal. An actuator (47) actuates a position of said mass (41) based on the control signal, whereas the further mass supports the payload to be isolated from earth (16).

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